

In this response, Applicant: (i) traverses the §103(a) rejections; and (ii) files a Notice of Appeal concurrently herewith. Applicant respectfully requests reconsideration of the present application in view of the following remarks.

Applicant respectfully asserts that the combination of Hendrickson and Ferro fails to establish a prima facie case of obviousness under 35 U.S.C. §103(a), as specified in M.P.E.P. §2143.

As set forth therein, M.P.E.P. §2143 states that three requirements must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited combination must teach or suggest all the claim limitations. While it is sufficient to show that a prima facie case of obviousness has not been established by showing that one of the requirements has not been met, Applicant respectfully believes that none of the requirements have been met.

The present invention, for example as recited in independent claim 1, defines a method of automating navigation between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements. The method comprises the steps of: (i) determining at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset based on structures associated with the source dataset and the target dataset; and (ii) computing at least one distance metric between the at least one target collection and the source collection such that a user can select the at least one target collection given the at least one computed distance metric. The independent claim had been amended in Applicant's response dated June 28, 2002 to further clarify that the determination step is based on structures associated with the source dataset and the target dataset. Independent claim 12 defines a similar apparatus-based invention, while independent claim 23 defines a similar article of manufacture-based invention. Independent claims 24 and 26 recite other embodiments of such automated navigation techniques. Each independent claim recites that the best match determination is based on structures associated with the source dataset and at least one target dataset.

Again as first set out in Applicant's previous response, such aspects of the present invention provide many advantages. For example, as stated at page 9, line 24, through page 10, line 6, of the present specification:

[T]he present invention provides automation for selecting datasets relevant to analysis tasks. Such automation is crucial to improving the productivity of decision support in systems management applications. The automation enabled by the invention provides value in many ways. For example, the invention makes the novice analyst more expert by providing a list of target datasets and collection descriptors that are closest to an element collection at hand (i.e., the source element collection). As a result, the novice focuses on the datasets that are most likely to be of interest in the analysis task. By way of further example, the invention makes expert analysis more productive. This is achieved by providing the target collection descriptor for each target dataset thereby enabling the construction of a system in which analysts need only click on a target dataset (or collection descriptor) in order to navigate to its associated element collection.

On the other hand, as explained in Applicant's previous response, Hendrickson discloses a method for locating related items in a geometric space which transforms relationships among items to geometric locations. The method locates items in the geometric space so that the distance between items corresponds to the degree of relatedness. The method attempts to facilitate communication of the structure of the relationships among the items. Hendrickson suggests that the method is especially beneficial for communicating databases with many items, and with non-regular relationship patterns. Examples of such databases with non-regular relationship patterns include databases containing items such as scientific papers or patents, related by citations or keywords (see Abstract and column 3, lines 7 through 9 of Hendrickson).

However, as made clear in Hendrickson, the "relatedness" of any two items depends on substantive information associated with the items. That is, "non-regular relationship patterns" refers to substantive patterns. At column 3, lines 40 through 50, Hendrickson specifically discloses what "relatedness" means:

Similarities between items can be based on many diverse characteristics of the items. For example, scientific papers can be similar if they contain common keywords. Alternatively, scientific papers can be similar if one paper cites the other paper, or if they both cite certain other papers. As another example, patents can be similar if they both cite the same other patent. Alternatively, they can be similar if they contain the same keywords, or if they share the same classification. Other characteristics can be used for assessing similarity, including geographic origin, time of origin, institutional origin, and authorship.

Ferro, on the other hand, discloses a method for moving a VSAM (virtual storage access method) base cluster to another DASD (direct access storage device) volume, while maintaining alternate indices into the cluster (see abstract and column 1 and 2 of Ferro).

First, Applicant asserts that no motivation or suggestion exists to combine Hendrickson and Ferro. For at least this reason, a prima facie case of obviousness has not been established. As is evident from the above summaries of the cited references, the two references perform different techniques, generating different results, in order to attempt to achieve different purposes. Hendrickson discloses a method for locating related items in a geometric space which transforms relationships among items to geometric locations. Ferro, on the other hand, discloses a technique for moving a VSAM base cluster to another DASD volume.

Applicant fails to see the motivation or suggestion to combine a geometric space-based item location system (Hendrickson) with a technique that deals with moving data in DASDs (Ferro). They are two completely unrelated concepts. As a result, Applicant strongly believes that one ordinarily skilled in the art would not look to a geometric space-based item location system to find inspiration to improve a system that attempts to move VSAM base clusters to another DASD volume, or vice versa.

Second, Applicant asserts that there is no reasonable expectation of success in achieving the present invention through a combination of Hendrickson and Ferro. For at least this reason, a prima facie case of obviousness has not been established. As mentioned above, despite the assertion in the outstanding final Office Action, Applicant does not believe that Hendrickson and Ferro are combinable since it is not clear why or how one would combine them. However, even if combined, for the sake of argument, they would not achieve a technique for automatically navigating between data with dissimilar structures including a source dataset containing one or more data elements and at least one target dataset containing one or more data elements, as the claimed invention provides.

Lastly, Applicant asserts that the combination of Hendrickson and Ferro fails to teach or suggest all of the claim limitations of independent claims 1, 12, 23, 24 and 26. For at least this reason, a prima facie case of obviousness has not been established. Again, assuming for the sake of argument that Hendrickson and Ferro could be properly combined, which for at least the reasons above it is believed that they can not be properly combined, the combination fails to teach or suggest

all claim elements in independent claims 1, 12, 23, 24 and 26. The inventive steps (or operations) comprise determining at least one collection of data elements from at least one target dataset which best matches a collection of data elements from a source dataset based on structures associated with the source dataset and at least one target dataset; and then computing at least one distance metric between the target collection and the source collection such that the user can select the target collection.

In the previous response dated June 28, 2002, Applicant addressed how independent claims 1, 12, 23, 24 and 26 patentably distinguish over Hendrickson. In the outstanding final Office Action, the Examiner added the Ferro reference, in combination with Hendrickson, to reject the independent claims. However, no where in the final Office Action does the Examiner address the claim language added in Applicant's previous response dated June 28, 2002 (i.e., the best match determination being based on structures associated with the source dataset and at least one target dataset), nor does the Examiner address the deficiencies previously pointed out with respect to Hendrickson regarding other claim limitations in the independent claims. The final Office Action appears to merely include the Ferro reference in combination with Hendrickson, and simply repeats the rejections raised in the previous non-final Office Action.

Nonetheless, Applicant will address the deficiencies of the combination of Hendrickson and Ferro.

The cited combination, again assumed to be proper for argument sake, does not meet the limitations set out in independent claims 1, 12, 23, 24 and 26. As explained above, the claimed invention is directed to techniques for automating navigation between data with dissimilar structures which comprises determining at least one collection of data elements from the at least one target dataset that best matches a collection of data elements from the source dataset based on structures associated with the source dataset and the target dataset.

Hendrickson, as is evident, considers items based on the substantive content in the items, not based on structures associated with the items, as in the claimed invention. That is, for example, Hendrickson compares such substantive content as references, keywords, authors, etc., in determining relatedness between two papers such that the two papers may be locationally represented in a geometric space representing the items. Thus, Hendrickson does not account for

structural dissimilarity, as does the claimed invention, but rather, accounts for substantive similarity. This is a fundamental difference between the two approaches.

Since Ferro has nothing to do with determining the relatedness of two items, Ferro does not make a best match determination whatsoever and, therefore, like Hendrickson, Ferro also fails to disclose determining a best match based on structures associated with the source dataset and the target dataset, as in the claimed invention.

Furthermore, Hendrickson and Ferro also fail to perform a distance metric computation after a determination of a best match, as recited by the claimed invention. Rather, Hendrickson uses a similarity computation to determine match or similarity. In fact, Hendrickson does not even determine a best match between items but merely determines how geometrically close two items should be placed in the geometric representation of the items. Ferro performs no best match determination. These are other fundamental differences between the Hendrickson/Ferro combination and independent claims 1, 12, 23, 24 and 26.

For a clear example of what type of data problem that the invention may provide a solution for with respect to dissimilar data structures, see the example provided in the context of QoS (quality of service) management at page 3, line 1, to page 4, line 27, of the present specification. This is significantly different than the substantive similarity problem that Hendrickson attempts to address, and the DASD cluster movement problem that Ferro attempts to address.

Thus, the combination of Hendrickson and Ferro fails to disclose all of the limitations of independent claims 1, 12, 23, 24 and 26.

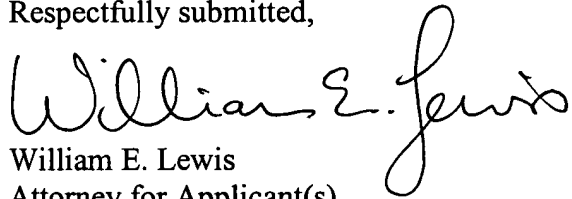
Morganstern fails to remedy the deficiencies described above with respect to the Hendrickson/Ferro combination. Applicant incorporates by reference herein all remarks made in his previous responses with respect to Morganstern, as well as with respect to any other issues.

For at least the reasons given above, Applicant respectfully requests withdrawal of the §103(a) rejections of independent claims 1, 12, 23, 24 and 26. Further, not only due to their respective dependence on such independent claims but also because such claims recite patentable subject matter in their own right, Applicant respectfully requests withdrawal of the §103(a) rejections of dependent claims 2-11, 13-22, 25 and 27.

For at least the foregoing reasons, claims 1-27 are believed to be patentable over the cited references. As such, the application is asserted to be in condition for allowance, and favorable action is respectfully solicited.

Please note that Applicant also concurrently submits a Notice of Appeal in this case.

Respectfully submitted,

A handwritten signature in cursive script that reads "William E. Lewis". The signature is written in black ink and is positioned to the right of the typed name.

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